



Customer No. 22,852  
Attorney Docket No.: 05788.0318

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Marco ROMAGNOLI et al.

Application No.: 10/506,769

Filed: April 19, 2005

Title : DEVICE FOR CROSSING OPTICAL  
BEAMS, IN PARTICULAR IN AN  
INTEGRATED OPTICAL CIRCUIT

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)  
) Group Art Unit: 2874  
)  
) Examiner: Not Yet Assigned  
)  
) Confirmation No. 3559  
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**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

Sir:

**SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

**UNDER 37 C.F.R. § 1.97(b)**

Pursuant to 37 C.F.R. §§1.56 and 1.97(b), applicants bring to the Examiner's attention the documents listed on attached Form PTO/SB/08. A copy of the listed documents is attached. Applicants respectfully request that the Examiner consider the documents listed on attached Form PTO/SB/08 and indicate that they were considered by making an appropriate notation on this form. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Related Applications:

1) WIPO Publication No. WO 03/75055 A1 (copy enclosed), corresponds to U.S. Application No. 10/506,658, filed April 21, 2005, now U.S. Publication No. 2005/0175304 A1.

2) WIPO Publication No. WO 03/75054 A1 (copy enclosed), corresponds to U.S. Application No. 10/506,542, filed May 5, 2005, now U.S. Publication No. 2005/0226561 A1.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute "prior art" under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents. Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

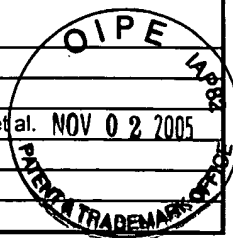
Dated: November 2, 2005

By: 

Ernest F. Chapman  
Reg. No. 25,961

Enclosures  
EFC/FPD/mld

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|--|---|----|---|-------------------------------|------------------------|
| IDS Form PTO/SB/08: Substitute for form 1449A/PTO<br><br><h2 style="text-align: center; margin: 0;">INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANTS</h2> <p style="text-align: center; font-size: small;">(Use as many sheets as necessary)</p> |   |    |   | <b>Complete if Known</b>      |                        |
|  |   |    |   | <i>Application Number</i>     | 10/506,769             |
|  |   |    |   | <i>Filing Date</i>            | April 19, 2005         |
|  |   |    |   | <i>First Named Inventor</i>   | Marco ROMAGNOLI et al. |
|  |   |    |   | <i>Art Unit</i>               | 2874                   |
|  |   |    |   | <i>Examiner Name</i>          | Not Yet Assigned       |
|  |   |    |   | <i>Attorney Docket Number</i> | 05788.0318             |
| Sheet  | 1 | of | 1 |                               |                        |



| U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS |                       |   |   |   |   |
|---|-----------------------|---|---|---|---|
| Examiner Initials                                   | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2</sup> (if known) | Issue or Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|   |                       | US-   |   |   |   |
|   |                       | US-   |   |   |   |
|   |                       | US-   |   |   |   |
|   |                       | US-   |   |   |   |

**Note: Copies of the U.S. Patent Documents are not Required in IDS filed after October 21, 2004**

| FOREIGN PATENT DOCUMENTS |                       |  |                                |   |   |                          |
|--------------------------|-----------------------|--|--------------------------------|---|---|--------------------------|
| Examiner Initials        | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | Translation <sup>6</sup> |
|                          |                       | WO 03/075055 A1  | 09-12-2003                     | ROMAGNOLI et al.                                |   |                          |
|                          |                       | WO 03/075054 A1  | 09-12-2003                     | ROMAGNOLI et al.                                |   |                          |
|                          |                       |  |                                |   |   |                          |

| NON PATENT LITERATURE DOCUMENTS |                       |   |                          |
|---------------------------------|-----------------------|---|--------------------------|
| Examiner Initials               | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | Translation <sup>6</sup> |
|                                 |                       | ESPINOLA, R. L. et al, "A Study of High-Index-Contrast 90° Waveguide Bend Structures", OPTICS EXPRESS, Vol. 8, No. 9, pp. 517-528, (April 23, 2001).  |                          |
|                                 |                       | YANG, W. et al., "Design of Planar Optical Waveguide Corners With Turning Mirrors", Proceedings of Integrated Optics, Technical Digest Series, Vol. 6, pp. 58-63, (1996).   |                          |
|                                 |                       | MANOLATOU, C. et al., "High-Density Integrated Optics", Journal of Lighthwave Technology, Vol. 17, No. 9, pp. 1682-1692, (September 1999).  |                          |
|                                 |                       | MEKIS, A. et al., "High Transmission Through Sharp Bends in Photonic Crystal Waveguides", Phys. Rev. Lett., Vol. 77, pp. 3787-3790, (1996).   |                          |
|                                 |                       | MEADE, R. D. et al., "Novel Application of Photonic Band Gap Materials: Low-Loss Bends and High Q Cavities", J. App. Phys., Vol. 75, pp. 4753-4755, (1994).   |                          |
|                                 |                       | CHOW, E. et al., "Quantitative Analysis of Bending Efficiency in Photonic-Crystal Waveguide Bends at $\lambda=1.55 \mu\text{m}$ Wavelengths", Optics Letters, Vol. 26, No. 5, (March 1, 2001).  |                          |
|                                 |                       | ASHCROFT et al., "SOLID STATE PHYSICS", International Edition, Sanders College Publishing, p. 89.   |                          |

|                    |                 |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.